

AMENDMENTS TO THE CLAIMS:

1. (Original) A coupling assembly for releasably interconnecting confronting ends of first and second fluid carrying conduit members wherein each has an annular flange fixedly attached to each of the confronting ends, said coupling assembly comprising:

a sleeve for circumferentially surrounding the flanges;

5 a pair of arcuate coupling halves pivotally joined at first adjacent ends for circumferentially surrounding said sleeve, each coupling half further having a web section, opposing transverse edges and a second end;

at least one bonding wire externally mounted to one of said coupling halves, said bonding wire having free ends secured to the coupling half proximate said first adjacent ends, said
10 bonding wire extending around both said transverse edges of said coupling half and said bonding wire spanning said web;

at least a pair of engagement members, one engagement member of said pair of engagement members being mounted externally to each said second end of said coupling halves;

means mounted on each coupling half for securing said engagement members to their
15 respective coupling halves; and

means incorporated on each coupling half for biasing a corresponding engagement member, wherein said coupling halves are rotated to circumferentially surround said sleeve, and said engagement members are placed to engage said means for securing thereby placing said coupling assembly in a locked position.

2. (Original) A coupling assembly, as claimed in claim 1, wherein:

said means for securing includes a pair of support bars, one support bar being mounted on each second end of said pair of coupling halves, and each said support bars extending longitudinally across said web section.

3. (Original) A coupling assembly, as claimed in claim 1, wherein:

each said engagement member includes a first end rotatably mounted to said means for securing and a second end including a locking groove which engages said means for securing when said coupling assembly is in the locked position.

4. (Original) A coupling assembly, as claimed in claim 3, wherein:

each said engagement member further includes a cam portion which contacts said means for securing as said coupling halves are rotated to place the coupling assembly in the locked position.

5. (Original) A coupling assembly, as claimed in claim 1, wherein:

each coupling half includes a pair of annular ribs proximate said transverse edges thereby defining a pair of grooves for receiving corresponding portions of said bonding wire therein.

6. (Original) A coupling assembly, as claimed in claim 1, wherein:

said biasing means includes at least one spring finger which attaches to a corresponding engagement member and biases said engagement member for rotation about said means for securing.

7. (Original) A coupling assembly, as claimed in claim 1, wherein:

each coupling half includes a hinge section attached at said first end thereof, and said hinge section further includes a curved projection integral with said hinge section for receiving and securing one free end of said bonding wire.

8. (Original) A coupling assembly, as claimed in claim 1, wherein:

said coupling assembly is coated with an electrically conductive coating.

9. (Original) A coupling assembly, as claimed in claim 7, wherein:

each said hinge section is externally mounted to said coupling halves.

10. (Currently Amended) In combination with a pair of fluid carrying conduit members, a coupling assembly for releasably securing confronting ends of the conduit members, said combination comprising:

a sleeve for circumferentially surrounding and sealing said confronting ends therein;

5 a pair of arcuate coupling halves pivotally joined at first adjacent ends, said coupling halves each further having opposing transverse edges, a web section interconnecting said opposing transverse edges, and second ends;

 a pair of bonding wires, one bonding wire mounted to each coupling half, each bonding wire traversing along each transverse edge and across said web section so to make a contact at
10 multiple points along said confronting ends of the conduit members, and each said bonding wire spanning its corresponding coupling half thereby forming a continuous conductive path across said coupling;

 at least a pair of engagement members rotatably mounted to corresponding support bars secured proximate said second ends of said coupling halves; and

15 a spring member attached to each engagement member for providing a biasing force to resist rotation of each engagement member about its corresponding support bar, wherein said coupling halves are rotated to circumferentially surround said sleeve, and said engagement members are placed to engage the support bar on the opposing coupling half thereby placing said coupling in a locked position.

11. (Original) The combination, as claimed in claim 10, wherein:

 each engagement member further includes a locking groove formed thereon which receives the support bar when the coupling is in the locked position.

12. (Original) The combination, as claimed in claim 10, wherein:

each engagement member further includes a cam portion which contacts the support bar as the coupling halves are rotated to place the coupling in the locked position.

13. (Original) The combination, as claimed in claim 10, wherein:

each coupling half includes a pair of annular ribs proximate said transverse edges defining a pair of grooves for receiving corresponding portions of said bonding wire therein.

14. (Currently Amended) ~~The combination, as claimed in claim 10, wherein A~~
coupling assembly for releasably interconnecting confronting ends of first and second fluid
carrying conduit members wherein each has an annular flange fixedly attached to each of the
confronting ends, said coupling assembly comprising:

5 a sleeve for circumferentially surrounding and sealing said confronting ends therein;

a pair of arcuate coupling halves pivotally joined at first adjacent ends, said coupling
halves each having opposing transverse edges and second ends;

a pair of bonding wires, one bonding wire mounted to each coupling half, each bonding
wire traversing along each transverse edge so to make a contact at multiple points along said

10 confronting ends of the conduit members, and each said bonding wire spanning its corresponding
coupling half thereby forming a continuous conductive path across said coupling;

at least a pair of engagement members rotatably mounted to corresponding support bars
secured proximate said second ends of said coupling halves;

15 a spring member attached to each engagement member for providing a biasing force to
resist rotation of each engagement member about its corresponding support bar, wherein said
coupling halves are rotated to circumferentially surround said sleeve, and said engagement
members are placed to engage the support bar on the opposing coupling half thereby placing said
coupling in a locked position; and

20 each coupling half includes a hinge section attached at said first end thereof, and said
hinge section further includes an integral curved projection for receiving and securing one free
end of said bonding wire.

15. (Original) A coupling assembly, as claimed in claim 10, wherein:

said coupling halves are coated with an electrically conductive coating.

16. (Currently Amended) A method of releasably interconnecting confronting ends of
first and second fluid carrying conduit members wherein an annular flange is attached to each of
the confronting ends and has a sealing ring therearound, a sleeve circumferentially surrounding
the sealing rings, and a pair of symmetrical arcuate coupling halves pivotally joined together at
5 first adjacent ends and being rotatable to surround said sleeve and flanges to bring second ends of
said coupling halves to a locking position wherein each second end of each coupling half
includes at least one engagement member rotatably mounted over an opposed support bar and
said engagement member being biased to resist rotation about the opposed support bar each
coupling half having a bonding wire, each bonding wire extending around opposing transverse

10 edges of each of the coupling halves such that the bonding wires are placed in contact with
metallic portions of the fluid carrying conduits, and each bonding wire extending perpendicular
with respect to said transverse edges thus bridging a web of its corresponding coupling half
thereby creating an electrical path joining the fluid carrying conduits, said method comprising the
steps of:

15 rotating the second ends of the coupling halves together;
 contacting each engagement member against an opposing support bar of the other
coupling half;
 further rotating the second ends of the coupling halves together to overcome the biasing
forces placed on each engagement member; and
20 engaging the support bars within locking grooves of each of the engagement members
thereby placing the coupling in a locked position.

17. (Canceled)

18. (Currently Amended) A coupling assembly for releasably interconnecting
confronting ends of first and second fluid carrying conduit members wherein each conduit
member has an annular flange fixedly attached to each of the confronting ends, said coupling
assembly comprising:

5 a sleeve for circumferentially surrounding the flanges;

a pair of arcuate coupling halves pivotally joined at first adjacent ends for circumferentially surrounding said sleeve, each coupling half further having a ~~webbed section~~, web opposing transverse edges, and a second end;

means for creating an electrically conductive path across the coupling assembly, said

10 means for creating being externally mounted to at least one of said coupling halves, said means for creating extending around both said transverse edges of the at least one coupling half, and said means for creating spanning across said ~~webbed section~~web, said means for creating being a unitary and continuous member;

15 at least a pair of biased engagement members, one engagement member of said at least a pair of engagement members being mounted externally to each said second end of said coupling halves, said engagement members being positionable in a locked position thereby securing the confronting ends of the fluid carrying conduit members.

19. (Currently Amended) A coupling assembly for releasably interconnecting confronting ends of first and second fluid carrying conduit members wherein each conduit member has an annular flange fixedly attached to each of the confronting ends, said coupling assembly comprising:

5 means for sealing the flanges in the coupling assembly, said means for sealing circumferentially surrounding the flanges;

a pair of arcuate coupling halves pivotally joined at first adjacent ends for circumferentially surrounding said means for sealing, each coupling half further having a web, opposing transverse edges, and a second end;

10 means for creating an electrically conductive path across the coupling assembly, said means for creating being externally mounted to at least one of said coupling halves, said means for creating extending around both said transverse edges of the at least one coupling half, and said means for creating spanning across said web, said means for creating being a unitary and continuous member;

15 at least a pair of biased engagement members, one engagement member of said at least a pair of engagement members being mounted externally to each said second end of said coupling halves, said engagement members being positionable in a locked position thereby securing the confronting ends of the fluid carrying conduit members.

20. (Original) A coupling assembly for releasably interconnecting confronting ends of first and second fluid carrying conduit members said coupling assembly comprising:

a sleeve;

5 a pair of arcuate coupling halves pivotally joined at first adjacent ends for circumferentially surrounding said sleeve, each coupling half further having a web section, opposing transverse edges and a second end;

at least one bonding wire externally mounted to one of said coupling halves, said bonding wire having free ends secured to the coupling half proximate said first adjacent ends, said

bonding wire extending around both said transverse edges of said coupling half and said bonding
10 wire spanning said web;

at least a pair of engagement members, one engagement member of said pair of
engagement members mounted externally to each said second end of said coupling halves;
and

means incorporated on each coupling half for biasing a corresponding engagement
15 member, wherein said coupling halves are rotated to circumferentially surround said sleeve, and
said engagement members are placed in an engaging position thereby placing said coupling
assembly in a locked position.

21. (Currently Amended) A coupling assembly for releasably interconnecting
confronting ends of first and second fluid carrying conduit members said coupling assembly
comprising:

means for sealing the confronting ends in the coupling assembly, said means for sealing
5 circumferentially surrounding the confronting ends;

a pair of arcuate coupling halves pivotally joined at first adjacent ends for
circumferentially surrounding said means for sealing, each coupling half further having opposing
transverse edges and a second end;

means for creating an electrically conductive path across the coupling assembly, said
10 means for creating being externally mounted to at least one of said coupling halves, said means
for creating extending circumferentially around ~~both said transverse edges of the said~~ at least one

coupling half and extending transversely across said at least one coupling half, said means for creating being a unitary and continuous member;

at least a pair of biased engagement members, one engagement member of said at least a pair of engagement members being mounted externally to each said second end of said coupling halves, said engagement members being positionable in a locked position thereby securing the confronting ends of the fluid carrying conduit members.

22. (New) A coupling assembly for releasably interconnecting confronting ends of first and second fluid carrying conduit members, said coupling assembly comprising:

a pair of arcuate coupling halves pivotally joined at first adjacent ends for circumferentially surrounding said conduit members, each coupling half further having a web, opposing transverse edges and a second end;

at least one bonding wire externally mounted to one of said coupling halves, said bonding wire extending around both said transverse edges of said coupling half and said bonding wire spanning said web;

at least a pair of engagement members, one engagement member of said pair of engagement members being mounted externally to each said second end of said coupling halves;

means mounted on each coupling half for securing said engagement members to their respective coupling halves; and

means incorporated on each coupling half for biasing a corresponding engagement member, wherein said coupling halves are rotated to circumferentially surround said conduit

15 members, and said engagement members are placed to engage said means for securing thereby placing said coupling assembly in a locked position.

23. (New) A coupling assembly, as claimed in claim 22, wherein:

said means for securing includes a pair of support bars, one support bar being mounted on each second end of said pair of coupling halves, and each said support bars extending longitudinally across said web section.

24. (New) A coupling assembly, as claimed in claim 22, wherein:

each said engagement member includes a first end rotatably mounted to said means for securing and a second end including a locking groove which engages said means for securing when said coupling assembly is in the locked position.

25. (New) A coupling assembly, as claimed in claim 22, wherein:

each said engagement member further includes a cam portion which contacts said means for securing as said coupling halves are rotated to place the coupling assembly in the locked position.

26. (New) A coupling assembly, as claimed in claim 22, wherein:

each coupling half includes a pair of annular ribs proximate said transverse edges thereby defining a pair of grooves for receiving corresponding portions of said bonding wire therein.

27. (New) A coupling assembly, as claimed in claim 22, wherein:

said biasing means includes at least one spring finger which attaches to a corresponding engagement member and biases said engagement member for rotation about said means for securing.

28. (New) A coupling assembly, as claimed in claim 22, wherein:

each coupling half includes a hinge section attached at said first end thereof, and said hinge section further includes a curved projection integral with said hinge section for receiving and securing one free end of said bonding wire.

29. (New) A coupling assembly, as claimed in claim 22, wherein:

said coupling assembly is coated with an electrically conductive coating.

30. (New) A coupling assembly, as claimed in claim 28, wherein:

each said hinge section is externally mounted to said coupling halves.

31. (New) In combination with a pair of fluid carrying conduit members, a coupling assembly for releasably securing confronting ends of the conduit members, said combination comprising:

a pair of arcuate coupling halves pivotally joined at first adjacent ends, said coupling
5 halves each further having opposing transverse edges, a web interconnecting said opposing
transverse edges, and second ends;

a pair of bonding wires, one bonding wire mounted to each coupling half, each bonding
wire traversing along each transverse edge and across said web so to make a contact at multiple
points along said confronting ends of the conduit members, and each said bonding wire spanning
10 its corresponding coupling half thereby forming a continuous conductive path across said
coupling;

at least a pair of engagement members rotatably mounted to corresponding support bars
secured proximate said second ends of said coupling halves; and

a spring member attached to each engagement member for providing a biasing force to
15 resist rotation of each engagement member about its corresponding support bar, wherein said
coupling halves are rotated to circumferentially surround said confronting ends of the conduit
members, and said engagement members are placed to engage the support bar on the opposing
coupling half thereby placing said coupling in a locked position.

32. (New) The combination, as claimed in claim 31, wherein:

each engagement member further includes a locking groove formed thereon which
receives the support bar when the coupling is in the locked position.

33. (New) The combination, as claimed in claim 31, wherein:

each engagement member further includes a cam portion which contacts the support bar as the coupling halves are rotated to place the coupling in the locked position.

34. (New) The combination, as claimed in claim 31, wherein:

each coupling half includes a pair of annular ribs proximate said transverse edges defining a pair of grooves for receiving corresponding portions of said bonding wire therein.

35. (New) The combination, as claimed in claim 31, wherein:

each coupling half includes a hinge section attached at said first end thereof, and said hinge section further includes an integral curved projection for receiving and securing one free end of said bonding wire.

36. (New) A coupling assembly, as claimed in claim 31, wherein:

said coupling halves are coated with an electrically conductive coating.

37. (New) A coupling assembly for releasably interconnecting confronting ends of first and second fluid carrying conduit members, said coupling assembly comprising:

a pair of arcuate coupling halves pivotally joined at first adjacent ends for circumferentially surrounding said conduit members, each coupling half further having a web, opposing transverse edges, and a second end;

means for creating an electrically conductive path across the coupling assembly, said
means for creating being externally mounted to at least one of said coupling halves, said means
for creating extending around both said transverse edges of the at least one coupling half, and
said means for creating spanning across said web, said means for creating being a unitary and
10 continuous member;

at least a pair of biased engagement members, one engagement member of said at least a
pair of engagement members being mounted externally to each said second end of said coupling
halves, said engagement members being positionable in a locked position thereby securing the
confronting ends of the fluid carrying conduit members.

38. (Canceled)

39. (New) A coupling assembly for releasably interconnecting confronting ends of
first and second fluid carrying conduit members said coupling assembly comprising:

a pair of arcuate coupling halves pivotally joined at first adjacent ends for
circumferentially surrounding said conduit members, each coupling half further having opposing
5 transverse edges and a second end;

means for creating an electrically conductive path across the coupling assembly, said
means for creating being externally mounted to at least one of said coupling halves, said means
for creating extending circumferentially around said at least one coupling half and extending

transversely across said at least one coupling half, said means for creating being a unitary and
10 continuous member;

at least a pair of biased engagement members, one engagement member of said at least a pair of engagement members being mounted externally to each said second end of said coupling halves, said engagement members being positionable in a locked position thereby securing the confronting ends of the fluid carrying conduit members.

40. (New) A coupling assembly for releasably interconnecting confronting ends of first and second fluid carrying conduit members, said coupling assembly comprising:

a pair of arcuate coupling halves pivotally joined at first adjacent ends for circumferentially surrounding said confronting ends of said first and second fluid carrying
5 conduit members;

at least one bonding wire externally mounted to one of said coupling halves, said bonding wire extending circumferentially with respect to one of said fluid carrying conduit members;

at least a pair of engagement members, one engagement member of said pair of engagement members being mounted externally to each said coupling halves;

10 means mounted on each coupling half for securing said engagement members to their respective coupling halves; and

a spring member attached to each engagement member for providing a biasing force to resist rotation of said engagement members about their respective means for securing, each said spring member including a base section mounted to the respective coupling half, and an integral

Application No. 10/347,096

- 15 spring finger protruding away from the base section and secured to the corresponding engagement member.